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P56637**IN THE CLAIMS**

Please cancel claims 3, 8, 10 and 18 without prejudice or disclaimer, and amend claims 1, 2, 4 thru 7, 9, 11 thru 17 and 19 thru 26, as follows:

1. (Currently Amended) A multi-channel image encoding apparatus for selectively receiving image signals transmitted through a plurality of input channels and encoding the image signals, comprising:

a channel data processor comprising a frame buffer group including a plurality of frame buffers for each input channel in order to receive a plurality of frame data through the plurality of input channels and to store the plurality of frame data, the channel data processor [[for]] selecting data transmitted to the frame buffer group to output the selected data, the channel data processor storing each unit of the frame data into the frame buffer group corresponding to each channel in accordance with a set-up input channel selection order; and

an encoder for encoding image signals output from the channel data processor with a Moving Picture Experts Group method;

said channel data processor comprising:

a first multi-switch unit for selectively contacting each of the input channels with the frame buffer group corresponding to each of the input channels; and

a second multi-switch unit for selectively contacting the frame

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18 buffer group with the encoder and outputting data output from the frame
19 buffer group to the encoder.

1 2. (Currently Amended) The multi-channel image encoding apparatus of claim 1,
2 ~~further comprised of outputting~~ wherein the plurality of frame data stored in the frame
3 buffer group is outputted to the encoder for each channel.

Claim 3. (Canceled)

1 4. (Currently Amended) The multi-channel image encoding apparatus of claim
2 ~~[[3]] 1, further comprised of the~~ said first multi-switch unit storing each unit of the frame
3 data into the frame buffer group corresponding to the input channels in accordance with a
4 set-up input channel selection order, and the second multi-switch unit contacting with the
5 frame buffer group in accordance with a set-up channel contact order and outputting the
6 plurality of frame data stored in the contacted frame buffer group for each of the input
7 channels.

1 5. (Currently Amended) The multi-channel image encoding apparatus of claim 4,
2 ~~with the~~ said encoder comprising:
3 a discrete cosine transformer for performing a discrete cosine transform with
4 respect to the image signals ~~[[input]]~~ inputted from the second multi-switch unit;

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5 a quantizer for quantizing signals ~~output~~ outputted from the discrete cosine
6 transformer and outputting the quantized signals;

7 an inverse quantizer for inversely quantizing the quantized signals;

8 an inverse discrete cosine transformer for performing an inverse discrete cosine
9 transform with respect to the inversely quantized signals;

10 a prediction memory;

11 an adder for adding data ~~output~~ outputted from the prediction memory and the
12 inversely discrete cosine transformed data, and outputting the added data to the
13 prediction memory; and

14 a subtracter for subtracting data ~~output~~ outputted from the prediction memory from
15 signals ~~[[input]]~~ inputted through the second multi-switch unit, and outputting the
16 subtracted signal to the discrete cosine transformer.

1 6. (Currently Amended) The multi-channel image encoding apparatus of claim 5,
2 ~~with the said~~ encoder further comprising:

3 a variable length encoder for performing ~~[[a]]~~ variable length encoding with
4 respect to signals ~~output~~ outputted from the quantizer, and outputting the encoded
5 signals; and

6 a parser for loading channel information about each frame to signals ~~output~~
7 outputted from the variable length encoder, and outputting the signals.

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1 7. (Currently Amended) The multi-channel image encoding apparatus of claim
2 [[3]] 1, further comprising:

3 a channel selection unit including a key for setting up a channel select pattern
4 [[in]] with regard to the plurality of input channels; and

5 a channel controller for controlling the first multi-switch unit and the second
6 multi-switch unit in accordance with the channel select pattern set up by the channel
7 selection unit.

8 Claim 8. (Canceled)

9 9. (Currently Amended) A multi-channel image encoding apparatus for encoding
10 image signals [[input]] inputted through a plurality of input channels, comprising:

11 a channel data processor for selectively contacting with the plurality of input
12 channels and selectively outputting transmitted image signals for each of the input
13 channels; and

14 an encoder for encoding signals ~~output~~ outputted from the channel data processor
15 by using a previous frame data stored in a prediction memory provided for each
16 corresponding channel;

17 said channel data processor comprising:

18 a first multi-switch unit for selectively contacting the input channels
19 with frame buffer corresponding to each of the input channels; and

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20 a second multi-switch unit for selectively contacting the frame
21 buffer with the encoder and outputting data outputted from the frame buffer
22 to the encoder.

Claim 10. (Canceled)

1 11. (Currently Amended) The multi-channel image encoding apparatus of claim
2 ~~[[10]]~~ 2, ~~with the~~ said encoder comprising:
3 a discrete cosine transformer for performing a discrete cosine transform with
4 respect to the input image signals;
5 a quantizer for quantizing signals ~~output~~ outputted from the discrete cosine
6 transformer;
7 an inverse quantizer for inversely quantizing the quantized signals;
8 an inverse discrete cosine transformer for performing an inverse discrete cosine
9 transform with respect to the inversely quantized signals;
10 an adder for adding data ~~output~~ outputted from the selected prediction memory and
11 the inversely discrete cosine transformed data, and outputting the added data to the
12 prediction memory of corresponding channels;
13 a subtracter for subtracting data ~~output~~ outputted from the prediction memory from
14 signals ~~[[input]]~~ inputted through the second multi-switch unit, and outputting the
15 subtracted signal to the discrete cosine transformer; and

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16 a prediction memory selection unit for controlling the prediction memory of
17 channels corresponding to the selected channels by the second multi-switch unit to be
18 contacted between the adder and the subtracter.

1 12. (Currently Amended) The multi-channel image encoding apparatus of claim
2 11, ~~with the~~ said encoder comprising:

3 a variable length encoder for performing a variable length encoding with respect to
4 signals ~~output~~ outputted from the quantizer; and

5 a parser for loading channel information about each frame to signals ~~output~~
6 outputted from the variable length encoder, and outputting the signals.

1 13. (Currently Amended) The multi-channel image encoding apparatus of claim
2 11, further comprising:

3 a channel selection unit having a key for setting up a channel select pattern ~~[[in]]~~
4 with regard to the plurality of input channels; and

5 a channel controller for controlling the first multi-switch unit, the second multi-
6 switch unit, and the prediction memory in accordance with the channel select pattern set
7 up by the channel selection unit.

1 14. (Currently Amended) An encoding method of a multi-channel image encoding
2 apparatus for selectively receiving image signals transmitted through a plurality of input

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3 channels and encoding the image signals, comprising the steps of:

4 outputting unit frame data transmitted ~~corresponding~~ in correspondence to [[the]]

5 a set-up input channel selection order for each channel to [[the]] an encoder;

6 selecting a prediction memory of channels corresponding to the [[input]] unit
7 frame data among the prediction memory with numbers corresponding to the number of
8 the input channels; and

9 encoding by using the data previously stored in the prediction memory and frame
10 data of [[the]] a current input channel.

1 15. (Currently Amended) A multi-channel image encoding apparatus for encoding
2 image signals [[input]] inputted through a plurality of input channels, comprising:

3 a channel data processor for selectively contacting with the plurality of input
4 channels and selectively outputting transmitted image information for each of the input
5 channels; and

6 an encoder for calculating a similarity by comparing image signals output
7 outputted from the channel data processor and [[the]] previous frame data stored in
8 [[the]] a frame memory provided for corresponding channels, and selecting one mode
9 among a plurality of encoding modes set up differently for each other [[in]] with regard to
10 [[the]] present frame data in accordance with the calculated similarity and encoding
11 according to the selected encoding mode;

12 said channel data processor comprising a first multi-switch unit for selectively

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13 contacting each of the input channels with a frame buffer of corresponding channels, and
14 a second multi-switch unit for selectively contacting an encoder with the frame buffer,
15 and outputting data outputted from the frame buffer to the encoder.

1 16. (Currently Amended) The multi-channel image encoding apparatus of claim
2 15, ~~[[with]]~~ wherein the plurality of encoding modes ~~comprising~~ comprises:

3 a first mode for encoding the present frame data with an intra coding method; and

4 a second mode for encoding data gained by subtracting the previous frame data
5 from the present frame data.

1 17. (Currently Amended) The multi-channel image encoding apparatus of claim
2 16, ~~with the~~ said encoder comprising:

3 an encode unit for encoding; and

4 a similarity calculation unit for determining a corresponding encoding mode by
5 calculating the similarity, controlling the encode unit to perform the determined encoding
6 mode, and outputting determined encoding mode information.

Claim 18. (Canceled)

1 19. (Currently Amended) The multi-channel image encoding apparatus of claim
2 ~~[[18]]~~ 15, ~~with the~~ said encoder comprising:

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3 an intra frame coder for intra coding with respect to ~~[[input]]~~ inputted image
4 signals;

5 an intra frame decoder for decoding with respect to signals ~~output~~ outputted from
6 the intra frame coder;

7 an adder for adding data ~~output~~ outputted from ~~[[the]]~~ a selected frame memory
8 and data ~~output~~ outputted from the intra frame decoder, and outputting the added data to
9 the frame memory of corresponding channels;

10 a subtracter for subtracting data ~~output~~ outputted from the selected frame memory
11 from signals ~~[[input]]~~ inputted through the second multi-switch unit and outputting the
12 subtracted signal to the intra frame coder; and

13 a frame memory selection unit for controlling the frame memory of channels
14 corresponding to channels selected by the second multi-switch unit accommodating to be
15 contacted between the adder and the subtracter by being controlled by the similarity
16 calculation unit.

1 20. (Currently Amended) The multi-channel image encoding apparatus of claim
2 17, ~~further comprised of the~~ said similarity calculation unit calculating a similarity by
3 comparing previous screen data stored in the selected frame memory by ~~[[the]]~~ a frame
4 memory selection unit and frame data of a selected channel by ~~the second~~ a multi-switch
5 unit with a set-up macro block unit, and determining an encoding mode with the set-up
6 macro block unit.

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1 21. (Currently Amended) The multi-channel image encoding apparatus of claim
2 20, ~~further comprised of the said~~ similarity calculation unit determining a calculated
3 similarity as the first mode[[,]] when the calculated similarity is greater than a set-up
4 reference value, and as the second mode[[,]] when the calculated similarity is less than
5 [[a]] set-up reference value.

1 22. (Currently Amended) The multi-channel image encoding apparatus of claim
2 19, further comprising:

3 a channel selection unit for setting up a channel select pattern to encode [[in]] with
4 regard to the plurality of input channels; and

5 a channel controller for controlling the first multi-switch unit, the second multi-
6 switch unit, and the frame memory selection unit so as to encode received images in
7 accordance with a channel select pattern selected by the channel selection unit.

1 23. (Currently Amended) An encoding method of a multi-channel image encoding
2 apparatus for selectively receiving image signals transmitted through a plurality of input
3 channels and encoding the image signals, comprising the steps of:

4 outputting unit frame data for each channel to [[the]] an encoder by selecting the
5 input channels in accordance with a set-up encode order;

6 selecting frame memory of channels corresponding to [[input]] inputted unit frame

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7 data among frame memory having numbers corresponding to the number of input
8 channels;

9 calculating a similarity by comparing data previously stored in selected frame
10 memory with frame data of currently inputted channels; and

11 encoding the present frame data by an intra coding method[[.]] when the similarity
12 is less than a set-up reference value.

1 24. (Currently Amended) The encoding method of a multi-channel image
2 encoding apparatus of claim 23, ~~further comprised of~~ wherein when the similarity
3 [[being]] is greater than the reference value, then data gained by subtracting previous data
4 from present data is encoded.

1 25. (Currently Amended) The encoding method of a multi-channel image
2 encoding apparatus of claim 23, ~~further comprised of~~ the similarity calculation being
performed with a set-up macro block unit.

1 26. (Currently Amended) [[The]] A multi-channel image encoding apparatus of
2 claim 1, with for selectively receiving image signals transmitted through a plurality of
3 input channels and encoding the image signals, comprising:

4 a channel data processor comprising a frame buffer group including a plurality of
5 frame buffers for each input channel in order to receive a plurality of frame data through

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6 the plurality of input channels and to store the plurality of frame data, the channel data
7 processor selecting data transmitted to the frame buffer group to output the selected data,
8 the channel data processor storing each unit of the frame data into the frame buffer group
9 corresponding to each channel in accordance with a set-up input channel selection order;
10 and

11 an encoder for encoding image signals output from the channel data processor with
12 a Moving Picture Experts Group method;

13 said channel data processor comprising:

14 a first multi-switch unit selectively contacting each one of the input
15 channels with the plurality of frame buffers of the frame buffer group
16 corresponding to said each one of the input channels, said each one of the
17 input channels corresponding to a specific and exclusive plurality of frame
18 buffers in the frame buffer group; and

19 a second multi-switch unit for selectively contacting with said each
20 one of the plurality of frame buffers of the frame buffer group
21 corresponding to said each one of the input channels, and outputting to the
22 encoder data output outputted from the plurality of frame buffers of the
23 frame buffer group corresponding to said each one of the input channels, ~~to~~
24 ~~the encoder.~~